

**EFFECT OF GEOTHERMAL PRODUCED WATER TO GROUND WATER
STUDY AT GEOTHERMAL POWER PT. GEO DIPa ENERGY DIENG UNIT,
KEJAJAR DISTRICT, WONOSOBO REGENCY AND BATUR DISTRICT,
BANJARNEGARA REGENCY,
PROVINCE OF CENTRAL JAVA**

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ABSTRACT

Research carried on in PT Geo Dipa Energy, Kejajar District, Wonosobo Regency and Batur District, Banjarnegara Regency, Central Java Province. This study aims to Assessing the impact of produced water to water quality of free ground water, assess and map the spread of pH values of boron content (B), and chloride (Cl).

The method used research method used is survey and qualitative analysis of the produced water is injected into the earth that affect ground water quality standards with reference to the PP. 82 in 2001. To obtain primary data and a survey carried out by direct measurements in the production area of PT. Geo Dipa Energy Dieng unit. For secondary data in the form of maps, an analysis by overlaying maps. Stages used in the study area preparation stages, stages of field work, laboratory stages, stages of analysis, evaluation phases.

Evaluation results of the research direction flownets by measuring the depth of the water table toward the West. Parameters used to measure the chemical properties of water that is pH, Boron (B), and chloride (Cl). The resulting pH value in the study area ranged from 5.82 to 8.84, according to Regulation No. 82 of 2001 on the pH value of the study area meet the standard of quality standards. Value Boron (B) of the study sites ranged from 0.5 mg / l - 2.4 mg / l, the results of the multiple sample points on the standard of quality standards it is caused by natural factors and human activities. Value of chloride (Cl) in the area ranged penelelitian 0.678 mg / l - 3.867 mg / l. From the evaluation results of research areas free of ground water quality standards to meet quality standards that have been determined.

Keywords: *Geothermal, Groundwater Quality free*